A qualitative exploratory study that aimed to understand the perceptions of a group of elderly people on cardiovascular risk factors. The study included 100 elderly of both sexes, of the city of Cruz Alta – RS, Brazil, 2009. Data collection happened through semi-structured interviews. From the thematic analysis were constructed the following three categories: Lack of knowledge on the diseases (diabetes mellitus and hypertension) as cardiovascular risk factors; Safety in drug therapy to minimize the risk factors; and Eating habits and healthy lifestyles. Based on the results, we suggest prioritizing the development of an educational process in multidisciplinary health directed to the specifics of the elderly, in order to reduce the cardiovascular risk factors and qualify their living.

Descriptors: Aging; Risk Factors; Hypertension; Diabetes Mellitus.

Estudo exploratório, qualitativo, cujo objetivo foi conhecer as percepções de um grupo de idosos sobre fatores de risco cardiovasculares. Participaram 100 idosos de ambos os sexos, da cidade de Cruz Alta – RS, em 2009. Os dados foram coletados por meio de entrevista semiestruturada. A partir da análise temática foram construídas três categorias: Desconhecimento de doenças (diabetes mellitus e hipertensão) como fatores de riscos cardiovasculares; Segurança na terapia medicamentosa para diminuir os fatores de risco; Hábitos alimentares e estilos de vida saudáveis. Com base nos resultados, sugere-se priorizar o desenvolvimento de um processo de educação em saúde multidisciplinar direcionado às especificidades dos idosos com o intuito de reduzir os fatores de risco cardiovasculares e qualificar o viver destes idosos.

Descriptors: Envelhecimento; Fatores de Risco; Hipertensão; Diabetes Mellitus.

Received: June 20th 2013  Accepted: Sept. 17th 2013  Rev Rene. 2013; 14(4):996-1004.

*Extracted from the Dissertation "Evaluation of cardiovascular risk factors in a group of elderly people of Cruz Alta-RS, Brazil", Universidade de Passo Fundo-RS, Brazil, 2011.
1Physiotherapist, Master, Universidade de Passo Fundo. Passo Fundo, RS, Brazil. E-mail: cleusarichter@ig.com.br
2Nurse, Teacher, Universidade de Passo Fundo. Passo Fundo, RS, Brazil. E-mail: bettinelli@upf.br
3Mathematician, Professor, Universidade de Passo Fundo. Passo Fundo, RS, Brazil. E-mail: pasqualotti@upf.br
4Doctor, Institute of Cardiology, Professor, Universidade de Cruz Alta. Cruz Alta, RS, Brazil. E-mail: viecillrn@cardiol.br
5Physician, Doctor of Philosophy in Nursing (PhD), Professor, Universidade Federal de Santa Catarina. CNPq-1A Researcher. Florianópolis, SC, Brazil. E-mail: alacoque@newsite.com.br
6Nurse, PhD in Nursing, Graduate Program in Nursing, Universidade Federal de Santa Catarina. Florianópolis, SC, Brazil. E-mail: glo.enf@gmail.com

Corresponding author: Luiz Antonio Bettinelli
Universidade de Passo Fundo – Passo Fundo, RS, Brasil. E-mail: bettinelli@upf.br
The social, economic, political and technological changes have contributed significantly to the increased longevity of the Brazilian population. Preliminary data from the Brazilian Institute of Geography and Statistics (IBGE) 2010 show that life expectancy in the country increased by about three years between 1999 and 2009. The new Brazilian life expectancy is 73.1 years. Women have lower mortality rates and represent 55.8% of people over 60 years. The female life expectancy increased from 73.9 years to 77 years, while for men, it increased from 66.3 years to 69.4 years.

This aging population affects the social, economic and political demands. Thus, information about the health conditions of this population and its demands for medical and social services are essential to the care planning and health promotion, in order to contribute effectively to the directed work of the multidisciplinary team, through health actions and interventions appropriate to the specific needs of each subject, from a global, unique and humanized perspective.

With regard to the demands for health care by the elderly, we know that obesity influences on other risk factors such as hypertension and increased levels of cholesterol and triglycerides. These factors may contribute to the onset of coronary artery disease and other cardiovascular diseases. Systemic arterial hypertension is the most common cardiovascular disease, and it is the main risk factor for the most frequent complications, such as stroke and acute myocardial infarction. Therefore, the health care team should be alert and monitor the elderly to identify cardiovascular risk factors and prevent them through the promotion of better health practices.

Nowadays, it has been widely spread that the sedentary lifestyle is directly associated with the risk of death from cardiovascular diseases, since physical activity helps to promote and establish beneficial effects on the cardiovascular system. Physical activity contributes to the protective effect against cardiovascular disease. Thus, by avoiding a sedentary lifestyle and adhering to physical activity, one can minimize the onset of risk factors, particularly cardiovascular diseases.

Cardiovascular diseases have different risk factors such as hypertension, diabetes mellitus (DM), dyslipidemia, smoking, sedentary lifestyle, and stress. These factors have been widely disseminated through programs of collective information such as health fairs, and individual information provided during consultation with health professionals.

Therefore, to relate risk factors for health with age, a research identified that alcoholism, heredity and sedentary lifestyle increased with age, whereas obesity, hypercaloric intake and smoking diminishes with increasing age, especially after 80, suggesting that the last three factors are associated with higher mortality rates. From the home visits, group therapy, nursing consultations, among others, through information, disclosures, guidelines provided by multidisciplinary teams, especially by nursing staff, it is possible to promote better health habits and daily healthy practices.

Thus, the aging population represents a significant change in Brazil, especially in Rio Grande do Sul. In that State, longevity has presented significant changes in recent years, as the average life expectancy at birth in 2004, rose to 69.2 years for men and 77.4 years for women. According to estimates, by 2020 the population of that State will have a little more than 500,000 women and 300,000 men aged 80 or more.

Increased longevity reinforces the importance of maintaining health and autonomy of this population, since increasing age, by itself, raises the risk of non-communicable chronic diseases (NCDs), especially cardiovascular diseases, which have replaced the infectious-contagious diseases of the last century. Population aging contributes to a growing need for care, requiring substantial efforts of public health services.

By knowing the perception of the elderly about heart disease, we can enhance the knowledge on these
subjects in the context experienced. Additionally, the perception seems to relate to knowledge, thought, reflection, truth, judgment, the real, the imaginary, and the problems involved in multiple relations and human dimensions\(^5\). Given the importance of this topic, we made the following question: What are the perceptions of elderly people in the South region of Brazil on cardiovascular risk factors? This study aimed to know the perceptions of a group of elderly people on cardiovascular risk factors.

**METHOD**

A qualitative study conducted with 100 elderly participants in a health fair held at Praça General Firmino, in the city of Cruz Alta, RS, Brazil, on September 28, 2009.

We invited the elderly residents of Cruz Alta to participate in the Heart Day. Each person received an identification form and numbering in sequential order, which we used to preserve the confidentiality and anonymity in publishing the results. Of 313 health fair participants, 100 agreed to answer the questionnaire with open questions. They kept the numbering received at the initial reception. Therefore, we named the interviews according to the numbering: I01, I02, I03, up to I300, respectively.

Data collection happened through semi-structured interviews, which started the dialogue with the following questions: What do you know about cardiovascular diseases? Do you know the risks that cardiovascular diseases can cause you? After the interviews, the speeches were transcribed and analyzed through thematic content analysis\(^6\) proposed by Minayo. For the author, the phases of analysis include pre-analysis; exploration of the material; and processing of the results, inference and interpretation.

Pre-analysis consists of reading the interviews after verbatim transcription, seeking to group them according to converging ideas on each question asked in the interview. After reading the raw data, we organized the units of meaning, in other words, sentences that supported the analysis.

The material exploration began through the encoding performed from the raw data. We grouped similar data, creating subcategories and categories successively. Later, we performed the treatment of results. We chose to preserve all relevant statements for each category, in order to reinforce the idea under discussion. From there, we conducted the inference and reasoning, based on and compared with literature data\(^6\).

We constructed three categories: Lack of knowledge on diseases (diabetes mellitus and hypertension) as cardiovascular risk factors; Safety in drug therapy to reduce the risk factors; and Eating habits and healthy lifestyles.

The Research Ethics Committee of the Universidade de Passo Fundo-RS, Brazil, approved the project under registration in CEP 183/2009, CAAE No. 0126.0.398.000-09.

**RESULTS**

Among the 100 elderly surveyed, 44% were male and 56% female. From the participants, 18% were unaware they had hypertension (elderly with systolic blood pressure ≥ 140 mm Hg or diastolic blood pressure ≥ 90 mm Hg), 16% had diabetes mellitus, 32% had hypercholesterolemia, 33% had hypertriglyceridemia, and 16% were smokers, in which the prevalence of smoking was higher in men (18%).

**Lack of knowledge on diseases (diabetes mellitus and hypertension) as cardiovascular risk factors**

A significant share of the elderly revealed ignorance about the cardiovascular risk factors and possible health complications. The lack of knowledge about the signs and symptoms of disease was associated with the late onset of treatment and specific care, as reported is the statements: *I just found out last month that I had very high blood glucose, but I felt nothing. I did not pay much*
attention to the food, especially the sweets that I like making and eating (I133). As I did not feel anything, I did not know nor had any symptoms; neither had I go to the doctor or health center, especially because there is always a large queue. I could not know that I needed care and treatment. I guess that delayed the treatment (of hypertension) (I27).

In their statements, the elderly showed little concern and indifference toward the illness (diabetes mellitus), since “silent” health problems do not interfere with their daily lives and their work activities. As seen in the statements: I am fine, these little problems do not interfere in my life, I will keep doing the things I used to do. When I have a more serious problem, I will seek assistance (I113). I think it has to be like this, eventually we have to die of something (I17). I do not care, because I do not feel anything. When I have headache, I take the medication I have at home or make some tea (I76).

Some elderly reported that even when noticing the changes in clinical examinations, and signs and symptoms, they feel good and have a normal life. The fact of “not feeling sick” is a conditional factor for not seeking counseling and treatment, a situation that may negatively result in the discovery of cardiovascular disease. As evidenced in the following statements: I have a normal life, even with some abnormal tests. I feel good, I have a normal life (I67). I have the feeling of being well, I always have great spirits, play with people. I do not feel sick, even with high blood pressure (I208).

Safety in drug therapy to reduce the risk factors

The participants reported to believe in medication as an important way for effective treatment. They highlighted that drug therapy decreases and controls the clinical changes and risk factors, as explained in the speeches: The important thing is to take the medicine. I do drug treatment (I61). You always have to go to the doctor and take the medication, it is very important (I67). The drug solves the problems of high blood pressure and blood glucose. I take medication for diabetes and pressure every day. I did the blood tests and they were better (I103). To take the medication, because they solve the problem. My blood pressure is good now (I110).

On the other hand, for many elderly, there is concern that if there is no free medicine available in the health service, and given the financial difficulties to purchase them, it can hinder the correct treatment compliance through drug therapy. As evidenced in the speeches: I ran out of the medicine and felt a little dizzy, but when the medicine came, they told me and I started the treatment again, I had no more dizziness since I started taking the drug (I115). Sometimes there is no medicine, and then I run out, because I cannot buy it (I31). When there is no medicine in the health center, my daughter buys it at the pharmacy, but it is very expensive (I108).

Eating habits and healthy lifestyles

Adopting a healthy lifestyle is closely related to improving the quality of life, interfering positively in the control of cardiovascular risk factors. With increased longevity, a healthy lifestyle requires specific care, especially with regard to balanced diet and regular exercise. On the other hand, the elderly participating in the study showed little concern with the diet. They reported eating sweets and fat-rich foods, sometimes excessively, as highlighted in the speeches: Normally I eat everything, I am a little chubby, but I have always been like this, since I was young. Sometimes I exaggerate in food and sweets, I am a bit greedy, and I do not take care of salt in food (I63). Food is a very good thing, especially on the weekend barbecues with family and neighbors. I am fine and do not worry, I drink my beer (I118). I do not pay much attention to the food; I like a fat and usually salty meat, since salt gives more taste for meat (I107).

Poor and unbalanced diet, in addition to provide nutrients harmful to health, fails to provide those needed for balance and wellbeing of the organism. Changes in eating habits, weight reduction, salt intake, and regular physical exercises can prevent cardiovascular diseases.

A significant share of the elderly resists practicing some physical activity by often ignoring its importance and the physical, biological and emotional benefits that it provides in their living-aging process, as can be seen in the following statements: I do not walk nor exercise, because my knee hurt when I walk and they get very swollen (I45). I think the gym is more for young people who like to have a beautiful body; I already passed this stage (I12). There is a place for seniors to exercise, but I do not go, because I do not feel like and do not know anyone that can go with me (I36).

However, after coping with hospitalization, the elderly unveil concern, seeking to adopt a more rigorous lifestyle.
healthcare, through a healthy balanced diet, as well as practicing exercise in their daily routine: After I went to the hospital for high blood pressure, I am concerned, because according to the doctor I need to lose weight and be healthier (120). I worry about having a healthy diet and doing physical exercises (156).

Quitting smoking is very difficult for the elderly, because often smoking settled in the first decade of life. Some seniors are aware of the harmful effects of tobacco, however, do not try or cannot quit. Therefore, guidelines and professional monitoring are essential to address this situation by offering psychological and differentiated support to each individual. The speeches reveal such a situation: I cannot quit smoking even though I have tried many times. I smoke since I was 12, I learned from my father (1107). I still smoke, although the number of cigarettes is lower. I know it is not good, but I smoke since I was a kid (1154).

DISCUSSION

The results of the study showed that the elderly lack knowledge about cardiovascular risk factors and their possible complications. For this reason, these subjects require professional monitoring with regard to healthcare performed daily and specific guidelines aimed at identifying and overcoming potential modifiable risk factors in the promotion and maintenance of their wellbeing.

It is important to emphasize that health knowledge significantly interferes with self-care behavior of people, as well as the perception that they have about the disease (7). In this sense, a study conducted in Recife described that women have a higher perception and recognition of diseases and, therefore, are more likely to self-care, accessing health services more often, compared with men (6). The denial or non-adherence to treatment, and especially the little concern about changing their habits and lifestyle are due to social and cultural factors, thus the patient’s knowledge is essential for the self-care in health (6).

Eating habits and lifestyles can positively influence the well-being and health situation of people with hypertension. In this sense, we identify a worrying situation with regard to the difficulty of the elderly to pursue a balanced diet, due to barriers and resistance to physical activity. However, the reduction in activity, associated with eating habits, enhances both the consumption of processed foods and a sedentary lifestyle, since most are retired and carry little activity in their daily workspace, favoring obesity, increased dyslipidemia and systemic arterial hypertension (7-8).

A research conducted in Rio de Janeiro, Brazil, in the Hospital Escola São Francisco de Assis, Universidade Federal do Rio de Janeiro, found as predominant risk factors: not practicing regular physical activity (68.2%), stress (54.5%), and family history of cardiovascular disease (72.7%) (9).

We should also mention that, diabetes represents an important morbidity and mortality among the elderly, with implications that adversely interfere in their quality of life, being a major cause of kidney failure, lower limb amputation, blindness, and cardiovascular disease (9). Regarding the incidence of associated morbidity, a study conducted in ten municipalities with over 100 thousand inhabitants of the State of Pernambuco, Brazil, revealed that 81.1% of the elderly reported two or more diseases, in which the comorbidities more evidenced by elderly diabetics were hypertension, dyslipidemia, eye problems, heart complications, and kidney complications, which were more prevalent in women (10).

In this perspective, regarding physical activity, a study conducted at the Clinic of Endocrinology, Hospital Universitário Lauro Wanderley, Universidade Federal da Paraíba, Brazil, identified that among elderly patients assisted in the basic units of the traditional model, there was 68.9% of sedentary lifestyle, being associated with age, self-perceived health, and identification of physical activity as beneficial for health (11). We can note the deficit of awareness on the part of the elderly to practice physical exercises as a negative aspect, harmful to their health promotion.
Due to the longevity, the elderly end up facing situations where they are often exposed to diseases, stress, suffering, and anguish. Thus, they find few activities for pleasure or relief from everyday stresses, and end up transferring it to food. In the pursuit of momentary pleasure and satisfaction, the elderly consume inappropriate and unhealthy foods.

Quitting smoking has a positive contribution in all age groups, increasing the life expectancy and quality of life for the elderly. We know the difficulty that individuals face to quit smoking; however, prevention and health promotion measures, in addition to the implementation of public health policies, along with the professional performance, may minimize the onset of diseases and deaths\(^{(11)}\). The professional can help the patient during the tobacco detoxification process, through guidance, information, motivational activities to monitor the patient, and not let him lose hope and determination to stop the unhealthy habit, like smoking. We must also emphasize that, the individual’s determination and effort to stop smoking may facilitate detoxification, resulting in a quality and healthy living.

In this perspective, hypertension (disease/risk factor), represents a major public health challenge, since cardiovascular diseases are the leading cause of death in Brazil. The main risk factors for hypertension, such as obesity, sedentary lifestyle, improper eating habits, smoking and alcohol can influence individually, as well as increasing their potential when more than one risk factor is present. Maintaining healthy eating habits such as eating fruits and vegetables, reducing fat and fried foods, as well as moderate the consumption of alcohol and tobacco can effectively reduce the blood pressure\(^{(12)}\). Therefore, it becomes necessary for the interdisciplinary team to remain alert to act in a unique and personalized way, delivering a health care guided by the specific needs of the elderly.

There were relevant results related to drug therapy for the elderly. Thus, the multidisciplinary health care team should closely observe them, such as the difficulty of getting the drug in basic health units. Corroborating this result, a study conducted with elderly patients with and without diabetes reported that to get the medicines to control it or other related pathology, 78.6% of subjects buy them and 21.4% get them for free in health services\(^{(9)}\). In many situations, there may be shortage of medicines in primary health care units, often leaving the professionals without options to meet the immediate needs of the patient. However, professionals and health managers should carry out strategies to ensure best pharmaceutical care to the elderly population in the SUS.

Nevertheless, for the drug treatment become effective, it is also necessary to adopt balanced eating habits, avoid smoking and alcohol, minimize stress, and practice physical activities regularly, among others\(^{(13)}\). In this scenario, the communication between patient and health professional should be clear, objective and easy to understand because it will contribute to the success of drug treatment and the proper health recovery of the elderly.

Seeking to understand the health needs of elderly hypertensive patients, from the perspective of a broader concept of health and the current health policy, we have the reaffirmation of the complexity that this entails, and the challenges imposed to managers and health workers\(^{(14)}\). The use of care actions for the health promotion of the elderly contributes to healthy aging, especially with better quality of life.

Adopting a healthy lifestyle for the elderly is an important strategy to prevent/minimize the appearance of cardiovascular risk factors and the onset of cardiovascular diseases, and prolong the quality aging process. It is up to the health professionals to be aware of some cardiovascular risk factors, such as uncontrolled coffee consumption, family history, salt intake, sedentary lifestyle, fat intake, smoking and alcohol, reducing major health disorders in the elderly\(^{(15)}\).

Another aspect that we should discuss refers to the importance of the educational process of the elderly.
Professionals need to find strategies, directing their practice to educational activities that lead to self-responsibility, awareness, independence, and autonomy in favor of better quality of life, considering the multiple dimensions of the elderly such as biological, social, psychological, spiritual, physiological, physical, and emotional, in a singular, plural and complex perspective, seeking a more flexible and sensitive interaction\(^{(16)}\).

The educational activities developed for the elderly population can occur in multiple ways, in order to provide information, guidance, and care, supporting new habits and healthy lifestyles. Adequate information can produce learning and contribute to the adoption of better practices in the daily life of the individual, to prolong the process of living with quality.

Thus, the action planning together with the community and family members of the elderly is beneficial, promoting their participation in the formulation of strategies that contribute to the motivation of these actors in health promotion.

In aging, the elderly reveal physiological, psychological and social weaknesses due to the losses suffered throughout life, making them susceptible to changes in health situation. For this reason, it is necessary to deliver a comprehensive health care for the elderly, by the multidisciplinary team working in primary care, expanding the view of health care of individuals, families and communities, in order to break away from the biomedical and healing model\(^{(15)}\). It is up to the multidisciplinary team that works with cardiovascular diseases to have abilities, skills and potential to offer health care contemplating the multiple needs of the individual, empowering them to a healthy lifestyle, thus glimpsing a new context of health care for the elderly.

The study enabled to know the perceptions of a group of elderly people about cardiovascular risk factors, leading to the categories: Lack of knowledge on the diseases (diabetes mellitus and hypertension) as cardiovascular risk factors; Safety in drug therapy to reduce the risk factors; and Eating habits and healthy lifestyles.

Unhealthy lifestyles can contribute to the worsening of cardiovascular risk factors and hence the onset of cardiovascular diseases. Thus, health professionals can drive the change in the lifestyle of the elderly, guiding them to a quality living, postponing as much as possible the complications and injuries of cardiovascular diseases.

Therefore, it is important to develop a health education process focused on prevention and changing lifestyle habits, so that the elderly avoid recurrence or worsening of the disease. It is essential that primary health care teams conduct a broad discussion in order to understand the behavior and lifestyle of elderly people suffering from cardiovascular diseases and their risk factors. Such discussions enable to develop new knowledge about the cultural, social and economic influence on the lifestyle of these people. For this reason, it is vital the multidisciplinary work in the care of elderly with cardiovascular changes.

This study was limited to the perceptions of a group of elderly people about cardiovascular risk factors. In this sense, we increase the need for the development of further studies that provide knowledge for a better professional practice and understanding about the habits/lifestyles of elderly patients with cardiovascular diseases.

CONCLUSIONS

Richter CM and Bettinelli LA contributed to the project design, field data collection, analysis, interpretation of data, drafting and final approval of the version to be published. Pasqualotti A contributed to the project design, data interpretation, drafting and final approval of the version to be published. Viecili PRN contributed to field data collection, drafting and final approval of the version to be published.
approval of the version to be published. Erdmann AL and Higashi GDC contributed to the analysis, interpretation of data, drafting and final approval of the version to be published.

REFERENCES